

Office Memorandum • UNITED STATES GOVERNMENT

TO : Chief, R&D Branch

CONFIDENTIAL

DATE: 2 March 1954

FROM :

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SUBJECT: Frequency response tests over microwave equipment Wednesday 3 March 1954.

1. The subject tests have been initiated toward determining the adaptability of microwave equipment as a transmission linkage for the equipment.

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2. The tests were originated as a result of a query from the Chief, Engineering Division, OC, concerning the feasibility of operating the over one 300 to 3,000 cps microwave voice channel. Upon checking with NSA engineers, it was learned that if the wave shape and frequency were maintained, they thought their equipment would work over microwave equipment. Efforts to learn ~~xxx~~ whether this was true or not proved inconclusive. Hence, the tests.

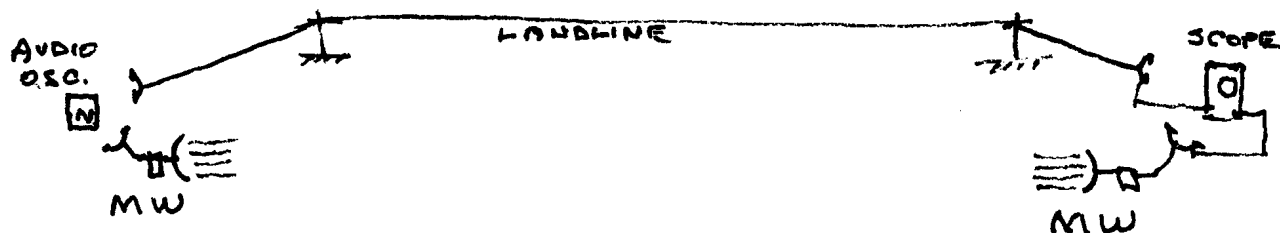
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2. The subject tests consists briefly of the following:

A. Establishing a land line between two microwave sites, and feeding an audio signal simultaneously down the land line and through the microwave equipments; picking off the signals at the receiving site and determining, by beating the two signals through a 'scope, what variation may exist. Audio frequencies used will be between 300 to 3,000 cps, with a short test to 6,000 cps. (See sketch.)

B. Attempts may be made to determine adjacent channel interference with 6,000 cps through one channel.



3. of NSA has requested permission to accompany the writer on the tests. attendance has been coordinated through OC channels. The Deputy Assistant Director, OC, has approved, provided there were no other areas available for the tests. Checks with Plant Engineering indicates no other areas available for the tests.

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